Comments to FCC NPRM to The E-rate Program CC Docket No. 02-6 GN Docket No. 09-51

Wednesday, July 07, 2010

sentinel

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1 CPS Incident Management Overview

1.1 Introduction

Sentinel Technologies has participated with the E-rate Program and worked with USAC since 1998 Our USAC Service Provider Identification Number is: 143008231 and our FCC Registration number is 0012467163. Sentinel has provided critical Internal Connection and Basic Maintenance services to ensure internet access and availability for schools, school districts and Indian reservations successfully. Services have included:

- Network Hardware Procurement Services
- Network Installation Services
- Network Maintenance Services

This document provides comments and responses to the NRPM CC Docket No. 02-6, GN Docket No. 09-51 released on May 9, 2010. Our comments are based on over 12 years of experience with the E-Rate program and services to schools around the country. We have addressed the specific sections that refer to service providers as well as specific proposals that we feel will impact the program and school districts. This document refers to the specific section in CC Docket No. 02-6, GN Docket No. 09-51 for easy reference.

1.2 Sentinel Technologies Overview

For more than 25 years, Sentinel Technologies has been recognized as a premier business technology services provider dedicated to delivering the highest quality customer service and support. Even as our services have spanned generations of technology, Sentinel has stayed at the forefront of IT developments and maintained a singular focus on providing practical and innovative solutions. With single-source accountability, Sentinel processes and teams can efficiently address a range of IT needs - from end-to-end solutions to targeted applications. Our proven success has allowed us to expand from our original charter of providing technology maintenance services to our current standing as one of the leading IT services and solutions provider in the U.S.

Sentinel provides our customers with the complete solution: vision, design, product, implementation, documentation, and support. With five independently managed offices in Chicago, IL, Milwaukee, WI, Phoenix, AZ, Ann Arbor, MI and Springfield, IL, we service our customers both nationally and internationally. By aligning with many of today's global technology leaders including Cisco, Microsoft, EMC, and VMware, Sentinel solutions achieve tangible results.[1]

http://www.sentinel.com/

1.3 E-rate Program Experience

Sentinel has participated in the E-rate program since its inception in 1998. Sentinel has provided Internal Connections and Basic Maintenance services to school districts and public libraries around the country. Sentinel has extensive experience with the E-rate program and delivering services per the guidelines as defined by USAC. We believe our experience as a long standing service provider we can offer constructive comments, suggestions and responses to the sections defined in the FCC communication of Notice of Proposed Rulemaking (NPRM) CC Docket No. 02-6, GN Docket No. 09-51.

1.4 NPRM CC Docket No. 02-6, GN Docket No. 09-51 – Comments

Below please find our comments to each section defined in the NPRM CC Docket No. 02-6, GN Docket No. 09-51. Please refer to the table of contents for our comments for each section as defined in the NPRM requests. Section numbers in this document coincide with the section numbers defined in the NPRM and each comment will refer to the paragraph number or numbers as defined on the CC Docket No. 02-6. GN Docket No. 09-51.

[1] http://www.sentinel.com/AboutSentinel/index.html

2 STREAMLINING THE APPLICATION PROCESS

2.1 Discussion (Paragraphs 16-17)

Sentinel Technologies agrees that there are efficiencies and improvements that can be made to streamline and improve the application process for schools and school districts across the country. In working with school districts we have witnessed the work load and effort put forth by applicants to apply for E-rate funding. We have reviewed your specific proposals and have provided our comments per your request to each below. As a Service Provider we are providing our opinions but note that we do not assist in the application process with any applicant.

2.2 Technology Plans (Paragraphs 18-20)

Sentinel agrees that elimination of technology plans for priority one applicants where local and public procurement requirements are already established. For a majority of our educational customers there are requirements in place that define how priority one services can be purchased. This will eliminate the burden of developing extensive technology plans for services that do not vary technically from year to year. By eliminating this requirement we can see as a service provider this will free up additional resources for applicants to leverage towards more complex services requiring more involvement and supervision. We do agree that a technology plan requirement for applications for the larger applicants that procure extensive services to service their large populations could have benefits to the E-rate program. Applicants that purchase large telecommunications and internet services can have complex services that include more than standard broadband services bundled in to the overall priority one service. Due to the limited funding available applicants requesting over the suggested amount should have to provide a technology plan that describes all services included in the priority once request.

We do agree that a technology plan requirement for priority two services should remain. Priority two services are complex and not as straight forward as priority one services. Applicants should have a defined technology plan that describes how these priority two services will be used to support the performance and availably of internet access to their students. Priority two services are complex and can vary extensively and as a result the technology plan can be used to justify the funding requests and to ensure the request is in accordance and alignment with the goals of the E-rate program.

2.3 Competitive Bidding Process (Paragraphs 21-31)

We agree that elimination of the form 470 and filling requirements for priority one services can reduce the work load and burden on applicant resources as well as USAC resources allowing them to process more complex applications and reviews such as priority two services. We agree that as long as there are state and local procurement requirements in place this process can be eliminated. For entities where procurements requirements are not present the current process should stay in effect.

As a service provider we have participated in the competitive bidding process extensively for priority two services. We agree that the competitive bidding process for priority two services should remain in effect. Priority two services are complex and can vary extensively by applicant and service provider. There needs to be check and balances to ensure bidding is fair and equitable to all that seek to participate and safeguards against fraud and abuse.

We do not agree that price should be the primary factor but one of the factors in the determining the best solution for an applicant. We agree vendors must be competitive and provide solutions that are cost-effective but they must also provide services that meet the educational needs and goals of the applicant's technology plan. That is not always the case. A bidding process that focuses on price as the primary factor when determining the winning bid can result in the selection of inferior solutions, services and service providers. This primary focus on price can and has resulted in services providers being selected that cannot financially or logistically support their proposals putting applicants at risk of reduced or inferior services. While price must have a high influence on the decision it should not be the deciding factor. All bids and service providers should be evaluated based on their overall solution compared to all applicants for an associated bid. The vendor with the best overall solution that meets the needs and goals of the applicant's technology plan should be selected. If bids provide all the requirements defined in the bid and complies with the applicant's procurement process and technology plan, price could be a determining factor. All bids are not always equal or comparable. In that the vendor that meets the goals of the technology plan might not have the lowest price but will deliver a service that will meet the educations needs for the applicant's population.

We agree that the bidding process must be fair and open to all that seek to respond. The process should have structure and requirements that eliminate potential conduct that could affect the outcome of a bid unfairly. All

services providers and bidders must be on an even playing field with access to the same level of information and resources. Anything information that is provided outside of the contents of the RFP should be made available to all respondents.

The conduct requirements and examples are appropriate as it related to the competitive bidding process. We agree that these requirements can and will eliminate potential undue influence and abuse to the bidding process. As a service provider though we do feel everyone should have the opportunity to educate an applicant on our products, services and experience. Access to applicant resources before, during and after the bidding process has always been challenging especially where budgets and staff have been reduced resulting in heavy workloads.

2.4 Application Process Streamlining (Paragrahs 32-33)

As a service provider we defer our comments to applicants for this section.

2.5 Discount Matrix Streamlining (Paragraphs 34-40)

As a service provider we defer our comments to applicants for this section.

3 PROVIDING GREATER FLEXIBILITY TO SELECT BROADBAND SERVICES

3.1 Discussion (Paragraph 44)

Sentinel, as a service provider, has extensive experience with selling, implementing and managing wireless broadband solutions and services. The proposed changes in this section introduce a number challenges to the FCC from service definition, service procurement and ongoing management and supervision. Access to broadband outside of the applicant's environment for students and patrons that would otherwise not have access to the internet or educations resources remotely will have educational benefits. The success criteria for this proposal will be how to provide access to these broadband services while ensure the funding is being used for educational purposes and the access is secure.

3.2 Wireless Services Outside of School (Paragraphs 45-51)

Providing access to wireless broadband services outside the applicant's premises can have far reaching benefits. Access to educational resources such as classes, class materials, libraries and research materials as well as distance learning and lectures have proven to help students advance at a faster pace. The challenge is providing the wireless services in a manner so they are not used or abused for activities not related to education. Limiting what a wireless broadband user of applicant premises can access, when they can access and how they can access the internet will need to be considered when funding this service. To control a wireless broadband user's access applicants would have to implements solutions or services to meet the requirements of the program including adherence to the Children's Internet Protection Act and the Protecting Children in the 21st Century Act. The question is how can this be accomplished? There are two focal points where access can be limited:

Examples include

- **Endpoint management:** Managing the remote end users computer or internet connection. Changes to the computers policies and configuration would be required or installation of a device that controls the internet connection such as a router or VPN appliance.
- **Service Provider:** An Internet Service Provider (ISP) can provide a controlled and filtered internet service to the end user.

These services and solutions will add complexity and cost to the applicant including increased demand on resources, overhead and management. This added burden of providing a controlled wireless broadband service or policing of an end user solution could deter the requests for funding of this service.

Wireless broadband access demand will continue to grow and will open access to educational resources to applicants and their users more and more each year. Per IDC the wireless LAN market is expect to grow 23% in 2010 alone.[2] To control this demand and the burden it will place on the finite funds available by the E-rate program the FCC should consider a trial basis. The challenges of managing the demand and access and risk of abuse or misuse are very prevalent and could result in limited success.

[2] http://www.idc.com/getdoc.jsp?sessionId=&containerId=223877&sessionId=47E728E00FE6CE24931865785D442F0A

3.3 Expanded Access to Low-Cost Fiber (Paragaphs 52-54)

We believe that FCC should permit applicants to receive support for unlit, dark fiber. In many cities and municipalities there is available fiber that can provide connectivity at a greatly reduced cost to the applicant compared to procuring the services from a telecommunications provider. Telecommunications carriers will also have to consider this additional competition and could result in lower priced solution offerings.

The main challenge with leased fiber is ongoing maintenance and support. It is critical that applicants have access to repair or maintain the dark fiber if there was an issue or failure. There are many challenges accessing dark fiber in a municipality or community requiring proper authorization, permits and access where the fiber is located such as under streets etc. To be able to ensure consistent and reliable services the applicant will need to lease or contract with a vendor that has this ability. This additional overhead and cost could result in loss of any price advantages over a Telecommunications carrier. The maintenance and support cost including the support of any priority two services relating to the support of on premise equipment should be considered as well.

3.4 Expanding Access for Residential Schools that Serve Unique Populations (Paragraphs 55-57)

It is apparent that the access to the internet and applicant networks is reaching beyond the campus and building as technology progresses. Access to educational classes and materials is not only available but required in some cases outside of the normal school day or library hours. The expansion of broadband services will open access to distance learning, education materials and programs. Extending priority one and two services to students and library patrons at off campus facilities like dormitories and campuses makes complete sense.

We would recommend that this access only be extended to the residential facilities that can access the campus or library network and services directly and not remotely. This would limit the cost and impact of adding these additional users and services to an existing network. Additionally applicants would also need to extend or implement solutions or services to comply with internet access safeguards as defined by the Children's Internet Protection Act and the Protecting Children in the 21st Century Act. This should not add much overhead or burden as these services should already be in place. Priority two services (Internal Connections and Basic Maintenance Services) will be required to support this expanded service offering and infrastructure but again should be minimal and in addition to the services already being provided to the campus or library.

Due to the limit of available funding we would agree that only applicants whose operating expenses are funded with state or federal funds be allowed to receive these extended services.

3.5 Targeting Supported Services for Broadband (Paragraphs 58-59)

As technology advances and demand for broadband internet services increases so will the challenges for this program. We understand the goal of this program is to provide higher bandwidth connectivity to students and libraries. But we also need to consider the support of this expanded offering to schools and libraries. As an industry leading service provider we have extensive experience in the design, implementation and management enterprise networks. It is one thing to provide bandwidth but you must consider the ongoing maintenance and support of the network to ensure it is performing and available to the students and patrons. Failure to provide the proper support of the internet and network connectivity can result in limited use or access resulting is inefficient use of funding.

We do agree that services can be prioritized and that certain services would potentially even be removed from funding has they are no longer viable solutions such as dial up networking.

Network convergence is a reality. Network convergence is the efficient coexistence of telephone, video and data communication within a single network. Applicants who transition to a converged network have realized costs savings in IT operations due to integrated IT systems. Higher Bandwidth has resulted in better video and voice conferencing for educational purposes. Funding for straight telecommunication services that are not integrated with data or video can be limited so the finite amount of funding available can support the goal of more broadband services to students and patrons.

4 EXPANDING THE REACH OF BROADBAND TO THE CLASSROOM

4.1 Discussion (Paragraphs 67-68)

As stated previously Sentinel Technologies has participated with the E-rate program since its inception in 1998. We have seen the demands on the program increase from year to year for priority one and priority two services while the total funding available has stayed finite. We have also witnessed how the demand has increased for priority one services leaving a reduced amount for priority two services especially in the past several years. Specifically Sentinel was impacted in 2008 when funding was denied for our services approved at the 86% discount level and below leaving our services not funded for the year and unpaid. We also work with a number of schools, libraries and Indian populations that have never received priority two funding as they could not qualify for the higher discount percentages even though they have a large percentage of students at the poverty level. We agree with the goals as identified in paragraph 68 on page 31 regarding providing more schools and libraries with internal connections funding and development of a predictable funding model for internal connections to guarantee some availability from year to year. We also agree that there is a funding issue that could result in critical support services being reduced or eliminated all together impacting applicants ability to provide high bandwidth to their students and patrons.

Below we have provided comments to the proposed options in this section. We have also provided additional recommendations to address the potential funding issues. We also explore the potential issues that could result if some or all of the proposed changes are implemented.

4.2 Predictable Internal Connections funding for More Schools and Libraries (Paragraphs 69-83)

From the start the E-rate program has allowed school districts and libraries to upgrade their network environments with new networking hardware and infrastructure including routers, hubs, switches and now wireless access points to accommodate additional access to the internet and increased bandwidth. With this increased bandwidth come new and improved educational tools and services that rely on improved network performance. All of these technologies require support and maintenance to ensure the performance of the network and availability of the internet for students and patrons access the services. As the complexity of the networks have grown so has the complexity of the support services required to service and maintains them. As a result the costs to support these complex networks has also increased resulting in increased demand for funding of internal connections and basic maintenance services with no growth in the amount of funding available for priority two services. To add to the complexity states and municipalities are reducing funding across the country and IT budgets are being reduced adjusting to the lack of federal and state funding. The challenge is how can the current program continue to provide priority two services while funding more priority one services as part of the NBP?

Below are comments on the suggestions identified in section IV, subsection 1 as well as alternative recommendations to for the FCC to consider.

Capped Amount (Paragraph 71): We agree that developing a plan that would allow for predictable funding for priority one and priority two services would improve the overall program, reduce complexity and speed funding releases. The proposal to cap funding for priority two services has validity but requires more analysis. The calculation for a funding cap on priority two funding must take into account the cost to deliver internal connection services to applicants. The calculation would need to take into account the costs incurred to provide priority two services to the applicant. The cap should consider at a minimum:

- The location of the applicant
- Size of the applicant including population size, number of locations
- Percentage of the population that participates in the free/reduced Lunch program.
- Size of the network infrastructure. Number and type of network and other eligible devices.

A priority two funding cap that is too low will result in insufficient funding to pay for the required network maintenance services. This lack of funding will shift the financial burden to the applicant to pay for these services. School districts currently have reduced IT budgets and are cutting support staff and resources and would be strained further due to another reduction in their funding

As you state in the NPRM there is a risk that school districts at the highest discount levels could see their funding reduced dramatically if priority two funding is capped. We recommend that any option to cap priority two funding be phased in over a period of no less than three years. This will allow applicants to search and work to secure

additional funding to procure critical priority two services that are no longer funded by E-rate. The risk of this option is applicants can also look to reduce the level of service it provides to its students and patrons now that funding for the support services is no longer available. This would result in reduced access to higher bandwidth and educational resources contrary to the goals defined in the National Broadband Program (NBP).

A standardized funding amount that applicants would be eligible for that is not tied student population is also a valid option but with similar risks as defined above. The purpose of priority two services is to provide network infrastructure and support services to provide internet access and higher bandwidth. The funding amount must scale to match the size of the applicant. The larger the applicants population or infrastructure the more priority two services they will require. While the larger applicants will still gain larger funding allocations the amount would be capped. An analysis of priority two funding of internal connections and basic maintenance services requests from previous funding years could result in per device funding amounts being defined based on available funding. This example would allow for a predictable funding amount each year and should result in funding to be available to more schools requesting priority two services.

Set Aside for Internal Connections (Paragraph 74):

A funding analysis would need to be conducted to determine what amount should be set aside for priority two services. We also agree that priority one funding could be reduced but we don't feel would have an overall negative impact on the program. We believe based on the funding analysis the minimum amount that would be set aside for internal connection services and capped would result in funding being allocated across more applicants with lower percentage of students that participate in the free/reduced lunch program than in previous years. We do have to stress that a complete analysis would need to be conducted and a determination that the capped amount and set aside provide adequate funding for priority two service for applicants. This example could result in dramatic reduction in funding for priority two services for applicants. We again recommend that any consideration for capping or limiting over all internal connections funding be phased in over a period of no less than 3 years to allow applicants to locate alternative funding sources for these critical support services. Again there is a risk that with these options applicants can also look to reduce the level of service it provides to its students and patrons now that funding for the support services is dramatically reduced or is no longer available. This would result in reduced access to higher bandwidth and educational services contrary to the goals identified in the NBP.

Threshold for Priority Two Funding (Paragraph 75):

As stated in this NPRM there is a finite amount of funding available for priority one and priority two services. By changing the thresholds and allocations so applicants with a smaller population of students that participate in the free/reduced lunch program receive a portion of the available priority two funding you are effectively reducing the funding to some of the neediest schools, students and patrons around the country. Any changes should be phased in over a period of time to allow applicants to adjust their expectations and look for alternative funding sources for the required priority two services. As stated before there is risk that with this option applicant's can also look to reduce the level of service it provides to its students and patrons now that funding for the support services is dramatically reduced or is no longer available. This would result in reduced access to higher bandwidth and educational services contrary to the goals identified in the NBP.

Revised Discount Matrix (Paragraph 76):

As commented earlier when working with the finite amount of funding being available changing the discount matrix to reallocate funding to more applicants that qualify for the lower discount levels will result in reduced funding for schools that qualify at the higher discount percentages. This will be reducing funding for some of the neediest schools, school districts and libraries across the country.

Having applicants pay for a portion of the funding request also is an option that can be considered. In some cases applicants are already doing this by removing schools from their overall application to raise the discount level qualifications. Districts then pay 100% of the internal connections and basic maintenance costs for those schools removed from the application. This effectively results in districts paying a high percentage of the support costs in order to qualify for funding. We know this practice is in question and comments are being requested in this NRPM.

It will need to be determined if the discount matrix is adjusted to spread the funding across more discount levels, will that guarantee or create predictable funding going forward? It would also be important to determine if applicants are requested to pay for percentage of their application how would that impact funding requests and funding availability? Due to the number of variables and options we are not prepared to provide an example of possible scenarios for changes to the overall discount matrix. We look forward to suggestions that will be presented as a result of this NPRM.

Eliminate the 2-in-5 Rule (Paragraph 77):

We agree that the 2-in-5 rule did not provide the intended results. Based on the proposals in this NPRM such has possible capping funding or setting funding thresholds we believe this rule is no longer required. Funding of internal connections would be limited to the funding available which would limit the scope of engagements in size and scope.

Application By School District (Paragraph 79):

As a service provider we defer our comments to applicants for this section.

Eliminate Funding for basic maintenance for internal connections (Paragraph 80): As the NPRM states Basic maintenance services are "necessary to the operation of the internal connections network. These services are "necessary" and as stated "without the maintenance service the internal connection would not function and service its intended purpose with a degree of reliability ordinarily provided in the marketplace to entities receiving such services".[3] As a service provider that has provided internal connection and basic maintenance services we agree that these services are necessary to ensure the performance and availability and ongoing operation of the internal connections provided by the E-Rate program.

As applicant environments have grown and expanded to accommodate increased bandwidth and network access to the internet so has the complexity and support requirements for these environments. It has been our experience that when Schools, School Districts and libraries develop their technology plans to take advantage of available priority one and priority two funding to upgrade their networks they also look at basic maintenance services as a critical component in that decision. Applicants would not be able to afford to expand their networks without funding support and would not be able to maintain these complex new networks without funding for basic maintenance services. Basic maintenance funding is critical to the ongoing function and availability of internet access, broadband services and educational services for applicants.

We feel that there are appropriate limitations in place today that control basic maintenance funding. School districts have identified the services that are eligible under basic maintenance services. Services that do not qualify are removed from the funding request and paid for separately by the applicants.

The overall purpose of the E-rate program is to fund network access and Broadband services for schools, school districts and libraries. The program must also consider funding the ongoing maintenance the support of these environments. The E-rate program has allowed applicants to purchase and install complex networks that they would not have been able to afford without the funding. The same applies to basic maintenance services. Basic maintenance funding allows applicants to support these advanced networks that they would not have considered or implemented if funding was available.

We agree that developing a plan that would allow for predictable funding basic maintenance services would improve the overall program, reduce complexity and speed funding releases. The proposal to cap funding basic maintenance services has validity but requires more analysis. The calculation for a funding cap must take into account the cost to deliver basic maintenance services to applicants.

A basic maintenance funding cap that is too low will result of insufficient funds to pay for required maintenance services. This lack of funding will shift the financial burden to the applicant to pay for these services. School districts currently have reduced IT budgets and are cutting maintenance services and staff. This additional burden to support these expanded networks would be strained further due to another reduction in their funding.

As a service provider delaying funding for basic maintenance services delivered in the prior funding year would add tremendous strain to applicant's budgets. Delays in payment for services delivered in the prior funding year would add cost and overhead to the applicants as they looks at options to finance these services in anticipation of payment in the coming year. There are ways to address concerns that the funding requests are not the actual cost for the repair and maintenance services but inflated to accommodate potential future changes to an applicant's environment tying up funding that will not be used. One solution is to have the applicant be required to only list actual devices in production at the start of the funding year limiting the potential of adding additional cost for project or upgrades that might never occur, encumbering funds that could be used elsewhere. This would eliminate the rollover funding scenarios we are seeing today.

We recommend that any option to cap basic maintenance funding be phased in over a period of no less than three years. This will allow applicants to search and work to secure additional funding to procure critical maintenance services that are no longer funded by E-rate. The risk of this option is applicants can also look to reduce the level of service it provides to its students and patrons now that funding for basic maintenance services is no longer available. This would result in reduced access to higher bandwidth and educational resources as identified in the NBP.

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[3] See NRPM at page 34, paragraph 80.

4.3 Indexing the Annual Funding Cap to Inflation (Paragraphs 84-85)

We agree that indexing the E-rate program funding cap to the rate of inflation. We also agree that the funding should remain at the level of the previous year if deflation should occur.

5 CREATING A PROCESS FOR DISPOSAL OF OBSOLETE EQUIPMENT

5.1 Discussion (Paragraphs 89-96)

As a service provider we defer our comments to applicants for this section.

Process for Disposal of Obsolete Equipment (Paragraph 90):

As a service provider we defer our comments to applicants for this section.

Revised FCC Form 500 (Paragraph 95):

As a service provider we defer our comments to applicants for this section.

6 Summary

As a service provider that has worked with the E-rate program since its inception we can see there are significant challenges with managing the volume of funding requests while trying to meet new goals like NBP initiative. Technology advances and new demands for more bandwidth will continue to increase requests for priority one services. As these network improvements are implemented and additional bandwidth access provided the more complex the networks will become. They will require maintenance services to ensure network and internet availability. Priority two services will be required to fund the demand for maintenance of these new complex environments.

Due to the current economy funding to school districts, libraries are down significantly with either funding being delayed or eliminated all together. Adding additional cost to applicant's budgets due to a reduction is funding will need to be carefully managed. Without the proper mix of priority one and priority two funding being available, applicants could reduce services to their students and patrons instead of expanding them.

We look forward to options that will allow this program to continue provide funding for these critical educational services while making changes that improve the overall participation, function and performance of this program.

Sincerely,

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